

Listing of Claims:

This listing of claims reflects all claim amendments and replaces all prior versions, and listings, of claims in the application. Material to be inserted in amended claims is in **bold and underline**, and material to be deleted is in ~~strikeout~~ or (if the deletion is five or fewer consecutive characters or would be difficult to see) in double brackets [[]].

1. (Currently amended) A[[n]] **front projection** apparatus ~~[[for projection display]]~~,
the apparatus comprising:

an image generation device configured to generate an image;

a wide angle lens system **providing a field angle of at least 100°** having an optical axis configured to receive the image and project the image along an optical path for display above the apparatus, and

direction changing optics configured to fold the optical path such that the optical path changes direction from a first direction to a second direction, the image generation device is positioned below the optical axis of the wide angle lens system.

2. (Original) The apparatus of claim 1, wherein the wide angle lens system includes a relay lens stage and a wide angle lens stage.

3. (Original) The apparatus of claim 3, wherein the relay lens stage is configured to generate a distorted intermediate image and the wide angle lens stage is configured to substantially cancel the distortion of the intermediate image.

4. (Original) The apparatus of claim 2, wherein the optical axis of the wide angle lens system is the optical axis of the relay lens stage.
5. (Original) The apparatus of claim 1, wherein the first direction is substantially the reverse of the second direction.
6. (Original) The apparatus of claim 1, wherein the first direction is toward a front of the projection display device and the second direction is toward a rear of the projection display device.
7. (Original) The apparatus of claim 1, wherein the direction changing optics include two fold mirrors.
8. (Original) The apparatus of claim 2, wherein the wide angle lens stage is in a first plane and the relay lens stage is in a second plane, and the first plane is above the second plane.
9. (Currently amended) A lens system for a front projection device, the system comprising:
a relay lens stage configured to generate an intermediate image;
a wide angle lens stage providing a field angle of at least 100° configured to substantially correct the intermediate image; and

direction changing optics configured to receive the intermediate image from the relay lens stage from a first direction and redirect the intermediate image to the wide angle lens stage in a second direction, where the first direction is substantially opposite the second direction.

10. (Original) The lens system of claim 9, wherein the direction changing optics comprise at least one fold mirror.

11. (Original) The lens system of claim 9, wherein the relays lens stage is configured to generate a substantially distorted image and the wide angle lens stage is configured to substantially cancel the distortion of the intermediate image.

12. (Original) The lens system of claim 9, wherein the relay lens stage has a first optical axis and the wide angle lens stage has a second optical axis and where the first optical axis is oriented below the second optical axis.

13. (Original) A projection device comprising the lens system of claim 9.

14. (Original) The projection device of claim 13, comprising a body having a front and a rear, wherein the first direction is toward the front of the body and the second direction is toward the rear of the body.

15. (Original) The projection device of claim 14, wherein the body is substantially sized such that upon positioning the body substantially adjacent a viewing surface a minimum throw distance of the lens system is achieved to the viewing surface.

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (New) A front projection system for displaying an image on a display surface, the display surface forming a display plane, the projection system comprising:

a body having a front portion and a rear portion, wherein the rear portion of the projection system is disposed substantially adjacent the display plane;

a lens system disposed in the body, where the lens system includes a relay lens stage, a wide angle lens stage having a field of at least 100°, and direction changing optics interposed the relay lens stage and the wide angle lens stage to form an optical path, where the direction changing optics change the optical path direction from a first direction towards the front portion of the body to a second direction towards the display surface.

22. (New) The front projection system of claim 21, wherein the wide angle lens stage provides a field angle of greater than 100°.

23. (New) The front projection system of claim 21, wherein the relay lens stage is disposed on a plane below the wide angle lens stage.

24. (New) The front projection system of claim 21, wherein an image offset of the front projection system is in an image offset up position.

25. (New) The front projection system of claim 21, wherein the projection system is offset down while an image offset is in an image offset up position.